Panasonic

English

WMA MP3 CD Player/Receiver

CQ-C1321NW/C1311NW/C1301NW

Operating Instructions

(CQ-C1321NW)

COMPACT DISC DIGITAL AUDIO TEXT WMA MP3 RDS

● Please read these instructions carefully before using this product and keep this manual for future reference.

Safety Information

■ Read the operating instructions for the unit and all other components of your car audio system carefully before using the system. They contain instructions about how to use the system in a safe and effective manner. Panasonic assumes no responsibility for any problems resulting from failure to observe the instructions given in this manual.

■ This manual uses pictographs to show you how to use the product safely and to alert you to potential dangers resulting from improper connections and operations. The meanings of the pictographs are explained below. It is important that you fully understand the meanings of the pictographs in order to use this manual and the system properly.

Warning This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed the instructions may result in severe injury or death.

Caution This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed the instructions may result in injury or material damage.

⚠Warning

Observe the following warnings when using this unit.

- ❑ **The driver should neither watch the display nor operate the system while driving.**
  Watching the display or operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before watching the display or operating the system.
- ❑ **Use the proper power supply.**
  This product is designed for operation with a negative grounded 12 V DC battery system. Never operate this product with other battery systems, especially a 24 V DC battery system.
- ❑ **Protect the Deck Mechanism.**
  Do not insert any foreign objects into the slot of this unit.
- ❑ **Do not disassemble or modify the unit.**
  Do not disassemble, modify the unit or attempt to repair the product yourself. If the product needs to be repaired, consult your dealer or an authorized Panasonic Service Centre.
- ❑ **Do not use the unit when it is out of order.**
  If the unit is out of order (no power, no sound) or in an abnormal state (has foreign objects in it, is exposed to water, is smoking, or smells), turn it off immediately and consult your dealer.
- ❑ **Refer fuse replacement to qualified service personnel.**
  When the fuse burns out, eliminate the cause and have it replaced with the fuse prescribed for this unit by a qualified service engineer. Incorrect replacement of the fuse may lead to smoke, fire, and damage to the product.

Observe the following warnings when installing.

- ❑ **Disconnect the lead from the negative (–) battery terminal before installation.**
  Wiring and installation with the negative (–) battery terminal connected may cause electrical shock and injury due to a short circuit. Some cars equipped with the electrical safety system have specific procedures of battery terminal disconnection.
  FAILURE TO FOLLOW THE PROCEDURE MAY LEAD TO THE UNINTENDED ACTIVATION OF THE ELECTRICAL SAFETY SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY OR DEATH.
- ❑ **Never use safety-related components for installation, grounding, and other such functions.**
  Do not use safety-related vehicle components (fuel tank, brake, suspension, steering wheel, pedals, airbag, etc.) for wiring or fixing the product or its accessories.
- ❑ **Installing the product on the air bag cover or in a location where it interferes with airbag operation is prohibited.**
- ❑ **Check for piping, gasoline tank, electric wiring, and other items before installing the product.**
  If you need to open a hole in the vehicle chassis to attach or wire the product, first check where the wire harness, gasoline tank, and electric wiring are located. Then open the hole from outside if possible.
- ❑ **Never install the product in a location where it interferes with your field of vision.**
- ❑ **Never have the power cord branched to supply other equipment with power.**
- ❑ **After installation and wiring, you should check the normal operation of other electrical equipment.**
  The continuation of their using in abnormal conditions may cause fire, electrical shock or a traffic accident.
- ❑ **In the case of installation to an airbag-equipping car, confirm warnings and cautions of the vehicle manufacturer before installation.**
- ❑ **Make sure the leads do not interfere with driving or getting in and out of the vehicle.**
- ❑ **Insulate all exposed wires to prevent short circuiting.**

⚠Caution

Observe the following cautions when using this unit.

- ❑ **Keep the sound volume at an appropriate level.**
  Keep the volume level low enough to be aware of road and traffic conditions while driving.
- ❑ **This unit is designed for use exclusively in automobiles.**
- ❑ **Do not operate the unit for a prolonged period with the engine turned off.**
  Operating the audio system for a long period of time with the engine turned off will drain the battery.
- ❑ **Do not expose the unit to direct sunlight or excessive heat.**
  Otherwise these will raise the interior temperature of the unit, and it may lead to smoke, fire, or other damage to the unit.
- ❑ **Do not use the product where it is exposed to water, moisture, or dust.**
  Exposure of the unit to water, moisture, or dust may lead to smoke, fire, or other damage to the unit. Make especially sure that the unit does not get wet in car washes or on rainy days.

Observe the following cautions when installing.

- ❑ **Refer wiring and installation to qualified service personnel.**
  Installation of this unit requires special skills and experience. For maximum safety, have it installed by your dealer. Panasonic is not liable for any problems resulting from your own installation of the unit.
- ❑ **Follow the instructions to install and wire the product.**
  Not following the instructions to properly install and wire the product could cause an accident or fire.
- ❑ **Take care not to damage the leads.**
  When wiring, take care not to damage the leads. Prevent them from getting caught in the vehicle chassis, screws, and moving parts such as seat rails. Do not scratch, pull, bend or twist the leads. Do not run them near heat sources or place heavy objects on them. If leads must be run over sharp metal edges, protect the leads by winding them with vinyl tape or similar protection.
- ❑ **Use the designated parts and tools for installation.**
  Use the supplied or designated parts and appropriate tools to install the product. The use of parts other than those supplied or designated may result in internal damage to the unit. Faulty installation may lead to an accident, a malfunction or fire.
- ❑ **Do not block the air vent or the cooling plate of the unit.**
  Blocking these parts will cause the interior of the unit to overheat and will result in fire or other damage.
- ❑ **Do not install the product where it is exposed to strong vibrations or is unstable.**
  Avoid slanted or strongly curved surfaces for installation. If the installation is not stable, the unit may fall down while driving and this can lead to an accident or injury.
- ❑ **Installation Angle**
  The product should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.
  The user should bear in mind that in some areas there may be restrictions on how and where this unit must be installed. Consult your dealer for further details.
- ❑ **Wear gloves for safety. Make sure that wiring is completed before installation.**
- ❑ **To prevent damage to the unit, do not connect the power connector until the whole wiring is completed.**
- ❑ **Do not connect more than one speaker to one set of speaker leads. (except for connecting to a tweeter)**

Laser Product

Label Indications and Their Locations

CAUTION
LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.

⚠Caution

This product utilizes a laser.

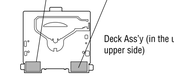
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Do not take apart this unit or attempt to make any changes yourself.
This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet.
Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

CLASS 1 LASER PRODUCT

Caution Label

CAUTION – LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
VORSICHT – LASERSTRAHLUNG WENN GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
ATTENTION – RAYONNEMENT LASER SI OUVERT. EVITER L'EXPOSITION AU FAISCEAU.
ADVARSEL – LASERSTRÅLING VED ÅBNING. UNDGÅ UDSYNING AF STRÅLEN.
VARNING – LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN.
VARO! – AVATTAESSA OLET ALTISTUMASTA SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
ADVARSEL – LASERSTRÅLING VED ÅBNING. UNDGÅ EKSPONERING FOR STRÅLEN.
ΠΡΟΣΟΧΗ – ΠΑΡΟΥΣΙΑ ΑΚΤΙΝΟΒΟΛΙΑΣ LASER ΣΤΗΝ ΠΕΡΙΟΧΗ ΑΝΟΙΓΜΑΤΟΣ. ΑΠΟΦΥΓΕΤΕ ΤΗΝ ΕΚΘΕΣΗ ΣΤΗΝ ΑΚΤΙΝΟΒΟΛΙΑ.



Deck Ass'y (in the unit, upper side)

Before Reading These Instructions

Panasonic welcomes you to our constantly growing family of electronic products owners.
We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

Differences among 3 models

This operating instruction manual is for 3 models CQ-C1321NW, CQ-C1311NW and CQ-C1301NW. All illustrations throughout this manual represent model CQ-C1321NW unless otherwise specified. The following table describes the differences among 3 models.

Features \ Models	CQ-C1321NW	CQ-C1311NW	CQ-C1301NW
Display colour	Blue	Black	Black
Key/disc slot illumination colour	Red	Red	Green

Preparation

First Time Power On

1 Set your car's ignition switch to the ACC or ON position.

2 Press **[SRC] (PWR:** Power**)**.
The demonstration screen appears.

3 Press **[DISP]** (Display).
The demonstration screen is cancelled, and no more appears.

Note: If you would like to turn on the power and make the demonstration message appear, hold down **[SRC] (PWR)** for more than 4 seconds (ACC ON).

ACC Setting

⚠Caution

Be sure to select OFF when your car has no ACC position in the ignition switch. Failure to do this could cause the battery to go dead.

For an ACC-equipped car, select ON. (➠ "Function Settings") The following functions are available. (Default: off)

- The power is turned on automatically when inserting a disc.
- The clock can be displayed even if the power is off.

ACC OFF : ACC not equipped (Default)
ACC ON : ACC equipped

Clock Setting

The 24-hour system is used for the clock.
Notes:
- Adjust the clock when "NO CT" appears on the display.
- When a broadcast of FM Radio Data System is received, the clock is adjusted automatically by the Clock Time service.
- Hold down [◁] or [▷] to change numbers rapidly.

1 Select the radio AM mode. (➠ "Radio (AM [LW/MW]/FM)")
AM 540

2 Press **[DISP]**.
NO CT (clock display)

3 Hold down **[DISP]** for more than 2 seconds.
CT 0:00 Hour blinks

4 Adjust the hour.
CT 8:00 Hour entered
[▷]: sets the hour ahead.
[◁]: sets the hour back.

5 Press **[DISP]**.
CT 8:00 Minute blinks

6 Adjust the minute.
CT 8:15 Minute entered
[▷]: sets the minute ahead.
[◁]: sets the minute back.

7 Press **[DISP]**.
CT 8:15 Completed

Clock Display at Power Off

Press **[DISP]** to change the display. (ACC ON)

Display off

CT 8:15
Clock display

Accessories

- **Operating Instructions** (English : YEFM285600) (Deutsch : YEFM285601) (Français : YEFM285602) (Nederlands : YEFM285603) (Svenska : YEFM285604) (Italiano : YEFM285605) (Español : YEFM285606) (Dansk : YEFM285607) **Q'ty: 1 set**
- **Installation Instructions** (English, Deutsch, Français, Nederlands : YEFM293892) (Svenska, Italiano, Español, Dansk : YEFM293893) **Q'ty: 1 set**
- **Warranty Card** **Q'ty: 1**

Installation kit (YEP0FZ5700)
- **Lock Cancel Plate** **Q'ty: 2**
- **Mounting Bolt** **Q'ty: 1**
- **Mounting Collar** (YEFX0217263) **Q'ty: 1**
- **Trim Plate** (YEFC051001) **Q'ty: 1**
- **Power Connector** (YEAJ02874) **Q'ty: 1**
- **Removable Face Plate Case** (YEFA131839) **Q'ty: 1**

Notes:
- The number in parentheses underneath each accessory part name is the part number for maintenance and service.
- Accessories and their part numbers are subject to modification without prior notice due to improvements.
- Mounting Collar and Trim Plate are mounted on the main unit at shipment.

Remote Control Unit (Option)

(CA-RC61EX)

- This instruction manual explains operations for use with the buttons on the main unit. (Different operations excluded)

Note: The optional remote control unit is available from your local dealer. (CA-RC61EX)

Notes on Discs

Notes on CD/CD Media (CD-ROM, CD-R, CD-RW)

If you use commercial CDs, they must have the label shown at right.
Some copy-protected music CDs are not playable.

COMPACT DISC DIGITAL AUDIO COMPACT DISC DIGITAL AUDIO TEXT

How to hold a disc
- Do not touch the underside of a disc.
- Do not scratch on a disc.
- Do not bend a disc.
- When not in use, keep a disc in a case.

Printed side

Do not use irregularly shaped discs.

Do not leave discs in the following places:
- Direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- Seats and dashboards

Do not use irregularly shaped discs.

Disc cleaning
Use a dry, soft cloth to wipe from the centre outward.

Do not attach any seals or labels to your discs.

Do not write on the disc label with a ballpoint pen or other hard-point pens.

<Correct> <Wrong>

Notes on CD-Rs/RWs

- You may have trouble playing back some CD-R/RW discs recorded using CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints, scratches, etc. on the disc surface.
- CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a car for extended periods may damage and make playback impossible.
- Some CD-R/RWs cannot be played back successfully due to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs.
- This player cannot play the CD-R/RW discs which contain other than CD-DA or MP3/WMA data (Video CD, etc.).
- Be sure to observe the instructions of the CD-R/RW disc for handling it.
- You may encounter trouble in playing MP3/WMA files or displaying the information of MP3/WMA files recorded with certain writing software or CD recorders.
- The file extension ".mp3" or ".wma" should be assigned to each file depending on the file format.
- This unit does not have the play list function.
- Although Multi-session recording is supported, the use of Disc-at-Once is recommended.

Supported file systems
ISO 9660 Level 1/Level 2, Apple Extension to ISO 9660, Joliet, Romeo
Note: Apple HFS, UDF 1.50, MIX mode CD, CD Extra is not supported.

Compression formats
(Recommendation: "Points to remember when making MP3/WMA files" on the right.)

Recording MP3/WMA files on a CD-media
- **You are recommended to minimize the chances of making a disc that contains both CD-DA files and MP3/WMA files.**
- **If CD-DA files are on the same disc as MP3 or WMA files, the songs may not play in the intended order, or some songs may not play at all.**
- **When storing MP3 data and WMA data on the same disc, use different folders for each data.**
- Do not record files other than MP3/WMA files and unnecessary folder on a disc.
- The name of MP3/WMA file should be added by rules as shown in the following descriptions and also comply with the rules of each file system.

- **MPEG 1 audio layer 3**
  Bit rate: 32 k-320 kbps
  VBR: Yes
  Sampling frequency: 32, 44.1, 48 kHz
- **MPEG 2 audio layer 3**
  Bit rate: 8 k-160 kbps
  VBR: Yes
  Sampling frequency: 16, 22.05, 24 kHz
- **Windows Media Audio Ver. 2, 8**
  Bit rate: 64 k-192 kbps
  VBR: No
  Sampling frequency: 32, 44.1, 48 kHz

Notes on MP3/WMA

Note: MP3/WMA encoding and writing software is not supplied with this unit.

Points to remember when making MP3/WMA files

Common
- High bit rate and high sampling frequency are recommended for high quality sounds.
- Selecting VBR (Variable Bit Rate) is not recommended because playing time is not displayed properly and sound may be skipped.
- The playback sound quality differs depending on the encoding circumstances. For details, refer to the user manual of your own encoding software and writing software.

MP3
- It is recommended to set the bit rate to "128 kbps or more" and "fixed".

WMA
- It is recommended to set the bit rate to "64 kbps or more" and "fixed".
- Do not set the copy protect attribute on the WMA file to enable this unit to play back.

⚠Caution
- **Never assign the ".mp3", or ".wma" file name extension to a file that is not in the MP3/WMA format. This may not only produce noise from the speaker damage, but also damage your hearing.**

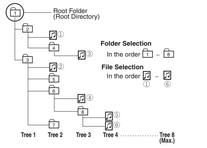
Display Information

Displayed items
- **CD-TEXT**
  Disc title
  Track title
- **MP3/WMA**
  Folder name
  File name
- **MP3 (ID3 tag)**
  Album name
  Title name/Artist name
- **WMA (WMA tag)**
  Album name
  Title name/Artist name

Displayable characters
- Name files and folders in accordance with the standard of each file system. Refer to the instructions of writing software for details.
- ASCII character set and special characters in each language can be displayed.

Notes:
- With some software in which MP3/WMA format files have been encoded, the character information may not be displayed properly.
- Undisplayable characters and symbols will be converted into an asterisk (✱).

Folder selection order/file playback order



Maximum number of files/folders
- Maximum number of files: 999
- Maximum number of files in one folder: 255
- Maximum depth of trees: 8
- Maximum number of folders: 255 (Root folder is included.)

Notes:
- This unit counts the number of folders irrespective of the presence or absence of MP3/WMA file.
- If the selected folder does not contain any MP3/WMA files, the nearest MP3/WMA files in the order of playback will be played.
- Playback order may be different from other MP3/WMA players even if the same disc is used.
- "ROOT" appears when displaying the root folder name.

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Designed for Windows Media™

Copyright
It is prohibited by copyright laws to copy, distribute and deliver copyrighted materials such as music without the approval of copyright holder except enjoying yourself personally.

No warranty
Above description complies with our investigations as of December 2004. It has no warranty for reproducibility and displayability of MP3/WMA.

Maintenance

Cleaning the Unit

Your product is designed and manufactured to ensure the minimum of maintenance. Use a dry, soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

Fuse

If the replaced fuse fails, contact your nearest authorized Panasonic Service Centre.

⚠Warning
- Use fuses of the same specified rating (**15 A**). Using substitutes or fuses with higher ratings, or connecting the unit directly without a fuse could cause fire or damage to the unit. If the replaced fuse fails, contact your nearest authorized Panasonic Service Centre.

Anti-Theft System

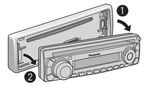
This unit is equipped with a removable face plate. Removing this face plate makes the unit totally inoperable.

Face Plate Removing/Mounting (Anti-Theft System)

⚠Caution
- This face plate is not waterproof. Do not expose it to water or excessive moisture.
- Do not remove the face plate while driving your car.
- Do not place the face plate on the dashboard or nearby areas where the temperature rises high.
- Do not touch the contacts on the face plate and the main unit, since this may result in poor electrical contact.
- If dirt or other foreign substances get on the contacts, wipe them off with a clean and dry cloth.

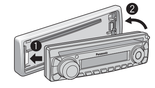
Removing

1 Turn off the power.
2 Press [⏏]. The face plate will open.
3 Pull it out toward you.
4 Put the face plate in the case.



Mounting

1 Slide the left side of the face plate in place.
2 Press the right end of face plate until a "click" is heard.



Specifications

General

Power supply	DC 12 V (11 – 16 V), test voltage 14.4 V, negative ground
Current consumption	Less than 2.2 A (CD mode, 0.5 W 4 channels)
Maximum power output	50 W x 4 (at 1 kHz), volume control maximum
Tone adjustment range	Bass: ±12 dB at 100 Hz, Treble: ±12 dB at 10 kHz
Speaker impedance	4 – 8 Ω
Pre-amp output voltage	2.5 V (CD mode, 1 kHz, 0 dB)
Pre-amp output impedance	200 Ω
Dimensions (W x H x D)	178 x 50 x 160 mm
Weight	1.3 kg

Disc Player

Sampling frequency	8 times oversampling
DA converter	1 bit DAC System
Pick-up type	Astigma 3-beam
Light source	Semiconductor laser
Wave length	790 nm
Frequency response	20 Hz – 20 kHz (±1 dB)
Signal to noise ratio	96 dB
Total harmonic distortion	0.01 % (1 kHz)
Wow and flutter	Below measurable limits
Channel separation	75 dB

Radio

FM	
Frequency Range	87.5 MHz – 108 MHz
Usable Sensitivity	6 dBμV (S/N 30 dB)
Stereo Separation	35 dB (at 1 kHz)
AM (MW)	
Frequency Range	531 kHz – 1 602 kHz
Usable Sensitivity	28 dBμV (S/N 20 dB)
AM (LW)	
Frequency Range	153 kHz – 279 kHz
Usable Sensitivity	32 dBμV (S/N 20 dB)

Notes:
- Specifications and design are subject to modification without notice due to improvements.
- Some figures and illustrations in this manual may be different from your product.

Sales and Support Information

Customer Care Centre
- For UK customers: 08705 357357
- For Republic of Ireland customers: 01 289 8333
- Visit our website for product information
- E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK
- Order accessories and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday - Friday 9.00am - 5.30pm. (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk.
- Most major credit and debit cards accepted.
- All enquiries, transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, so take a browse on our website for further details.

Matsushita Electric Industrial Co., Ltd.
Web Site: http://www.panasonic.co.jp/global/

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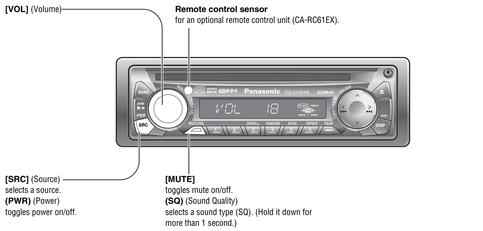
General



General Operations

Power On/Off

Set your car's ignition switch to the ACC or ON position.

Power on: Press **[SRC] (PWR)**.

Power off: Hold down [SRC] (PWR) for more than 1 second.

Source Selection

Press **[SRC]** to change the source.

Radio ⇔ Disc Player

Volume Adjustment

(Setting Range: 0 to 40, Default: 18)

Turn **[VOL]**.

Mute

ON: Press **[MUTE]**. (MUTE lights.)

OFF: Press **[MUTE]** again.

SQ (Sound Quality)

SQ is a function that can call up various sound types at the touch of button in accordance with your listening music type.

1 Holding down **[SQ]** for more than 1 second activates the SQ selection mode.

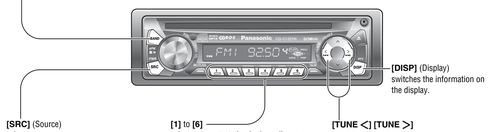
2 Press **[SQ]** to select the sound type (SQ) as follows:

- FLAT: (FLAT) flat frequency response: does not emphasize any part. (Default)
- ROCK: (ROCK) speedy and heavy sound: exaggerates bass and treble.
- POP: (POP) wide-ranged and deep sound: slightly emphasizes bass and treble.
- VOCAL: (VOCAL) clear sound: emphasizes middle tone and slightly emphasizes treble.

Notes:

- If no operation takes place for more than 5 seconds in the SQ selection mode, the display returns to the regular mode.
- Settings of SQ, bass and treble are influenced one another. If such an influence causes distortion to the audio signal, readjust bass/treble or volume.

Radio (AM [LW/MW]/FM)


[BAND]
selects a band in the radio source.
(APM) (Auto Preset Memory)
executes APM in the radio source. (Hold it down for more than 2 seconds.)
[SRC] (Source)
selects a source.
[1] to [6]
selects a preset station in the radio source, and presets the current station. (Hold it down for more than 2 seconds.)
[TUNE <] [TUNE >]
down/up the frequency. (Hold it down for more than 0.5 seconds and release it for seek tuning.)
[DISP] (Display)
switches the information on the display.

Operation Flow

1 Press **[SRC]** to select the radio source.

2 Press **[BAND]** to select a band.

3 Select a station.

Frequency adjustment

[TUNE <]: Lower

[TUNE >]: Higher

Note: Hold down either of them for more than 0.5 seconds and release it for seek tuning.

Preset station selection

Press the corresponding preset button from **[1]** to **[6]** to tune into a preset station.

Radio Source Display

lights while receiving an FM stereo signal.

Display change

Press **[DISP]** to change the display.

AM (LW/MW) mode:

Band/frequency

CT (Clock Time)

FM (not RDS) mode:

Band/frequency

PS

CT

RDS mode:

PS (Programme Service name)

Band/frequency

CT

Station Preset

Up to 6 stations can be preset in AM (LW/MW), FM1, FM2, and FM3 respectively.

Preset stations can be simply called up by pressing one of the preset buttons from **[1]** to **[6]**.

Auto Preset Memory (APM)

With this operation, stations with good receiving conditions can be automatically stored in the preset memory.

1 Select a band.

2 Hold down **[BAND] (APM)** for more than 2 seconds.

The preset stations under best receiving conditions are received for 5 seconds each after presetting the stations (SCAN). To stop scanning, press one of the buttons from **[1]** to **[6]**.

Note: New stations overwrite existing saved stations.

Manual station preset

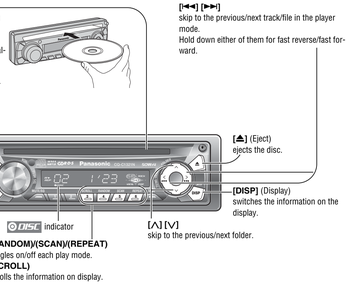
1 Tune into a station.

2 Hold down one of the preset buttons from **[1]** to **[6]** for more than 2 seconds.

(blinks once)

Note: New stations overwrite existing saved stations.

Disc Player


Disc slot
takes a disc in with the printed side facing up.
[◄◄] [►►]
skip to the previous/next track/file in the player mode.
Hold down either of them for fast reverse/fast forward.
(II / ►) (Pause/Play)
toggles pause/play in the player source.
[▲] (Eject)
ejects the disc.
[SRC] (Source)
selects a source.
DISC indicator
[DISP] (Display)
switches the information on the display.
(RANDOM)/(SCAN)/(REPEAT)
toggles on/off each play mode.
(SCROLL)
scrolls the information on display.
[Λ] [V]
skip to the previous/next folder.

Notes:

- The power will be turned on automatically when a disc is loaded at ACC ON.
- A disc which has both CD-DA data and MP3/WMA data on it may not be reproduced normally.

⚠ Caution

- **Do not insert a disc when the DISC indicator lights.**
- **Refer to the section of "Notes on Discs" and "Notes on MP3/WMA".**
- **This unit does not support 8 cm discs.**
- If you insert an 8 cm disc and cannot eject it, turn ACC of your car off once and turn it on again, then press **[▲]** (Eject).
- Do not insert foreign objects into the disc slot.

Operation Flow

1 Press **[SRC]** to select the Disc Player source.

2 Select a desired portion.

Track/file selection

Press **[◄◄] / [►►]**.

Note: To perform fast forward/reverse, hold down either of them.

Disc Player (CD-DA disc):

Previous/next track

Disc Player (MP3/WMA disc):

Previous/next file

Folder selection (MP3/WMA)

Press **[V] / [Λ]**.

Pause

Press **[BAND] (II / ►)**.

Press again to cancel.

Player Source Display

CD-DA mode display

Track number, Play time

Play Mode indicators

MP3/WMA mode display

lights when folder random/repeat/scan is on.

Folder number, File number

Play Mode indicators

Display change

Press **[DISP]** to change the display.

Disc Player (CD-DA disc):

Track number → Play time → Disc title → Track title → Clock

Disc Player (MP3/WMA disc):

Normal → Play time → Folder name/Album* → File name/Title, artist* → Clock

***ID3/WMA Tag On/Off**

Hold down **[3]** for more than 2 seconds.

TAG ON: album title and song title/artist name are displayed.

TAG OFF: (Default) folder name/file name are displayed.

Notes:

- For scrolling text, press **[3] (SCROLL)**.
- "NO TEXT" is displayed when there is no information on the disc.

Random, Repeat, Scan

Random play

All the available songs (tracks/files) are played in a random sequence.

Press **[4] (RANDOM)**.

Press again to cancel.

Folder random play (MP3/WMA)

All the available files in current folder are played in a random sequence.

Hold down **[4] (RANDOM)** for more than 2 seconds.

Hold down again to cancel.

Repeat play

The current song (track/file) is repeated.

Press **[6] (REPEAT)**.

Press again to cancel.

Folder repeat play (MP3/WMA)

The current folder is repeated.

Hold down **[6] (REPEAT)** for more than 2 seconds.

Hold down again to cancel.

Scan play

The first 10 seconds of each songs (tracks/files) is played in sequence.

Press **[5] (SCAN)**.

Press again to cancel.

Folder scan play (MP3/WMA)

From the next folder, the first 10 seconds of the first file on each folder is played in sequence.

Hold down **[5] (SCAN)** for more than 2 seconds.

Hold down again to cancel.

Troubleshooting

If You Suspect Something Wrong

Check and take steps as described below.

If the described suggestions do not solve the problem, it is recommended to take the unit to your nearest authorized Panasonic Service Centre. The product should be serviced only by qualified personnel. Please refer the checking and the repair to professionals. Panasonic shall not be liable for any accidents arising out of neglect of checking the unit or your own repair after your checking.

⚠ Warning

- Do not use the unit in an irregular condition, for example, without sound, or with smoke or a foul smell, which can cause ignition or electric shock. Immediately stop using the unit and consult your dealer.
- Never try to repair the unit by yourself because it is dangerous to do so.

Trouble	Check point
Common	
No power	● Start the engine. (Or turn the ignition switch to the ACC position.) ● Verify the wiring. (battery lead, power lead, ground lead, etc.) ● Fuse blown (Contact the nearest Panasonic Service Centre.) ● Ask a professional for fuse replacement. ● Be sure to use the same rated fuse.
No sound	● Disable the mute function. ● Verify the wiring. ● Wait until the dew disappears before turning on the unit.
Noise	● Make sure that grounding is established properly.
No sound from left, right, front, or rear speaker	● Adjust the balance and fader. ● Verify the wiring.
Left and right sounds are reversed	● Connect the speaker lead correctly.
Disc Player	
No sound, or disc is automatically ejected	● Load the disc correctly. ● Clean the disc.
Sound skip, poor sound quality	● Clean the disc.
Sound skip due to vibration	● The maximum permissible tilt angle is 30°. ● Secure the unit.
Disc not ejectable	● Press [▲]. If the disc is still not ejected, contact the nearest Panasonic Service Centre.

Trouble	Check point
Radio	
Frequent noise	● Tune in to another station of high-intensity waves. ● Make sure that the antenna mounted point is grounded properly.
Preset data deleted	● The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.
Error Display Messages	
-E1-	(The disc is ejected automatically.) The disc is dirty, or is upside down. ● Check the disc.
-E2-	(The disc is ejected automatically.) The disc has scratches. ● Check the disc.
-E3-	No operation by some cause. ● If normal operation is not restored, consult your dealer or the nearest Service Centre to ask for repairs.
-E4-	Cannot read the file ● Check the file.
-E5-	A WMA file can be copyrighted. ● The file protected by copyright is not playable.

Radio Data System (RDS) in FM Broadcasting

Useful functions such as **AF**, **TA**, **PTY** are available in the RDS (Radio Data System)-ready areas.

What is RDS?

Some FM stations are broadcasting added data compatible with RDS. This radio set offers convenient functions using such data.

RDS service availability varies with areas. Please understand if RDS service is not available in your area, the following service is not available, either.

The following functions are available when receiving RDS stations.

AF (Alternative Frequency)

The following functions are available when the AF mode is active (AF lights).

- When receiving conditions become bad, a station with better receiving conditions is automatically tuned in to.
- When executing APM, only RDS stations are selected.
- When calling up a preset station, a best receiving station is selected automatically. (**BSR** Best Stations Research)

Notes:

- The AF sensitivity can be adjusted.
- The AF available range can be adjusted. (⇒ "Function Settings")

TA (Traffic Announcement)

The following functions are available when the TA mode is active (TA lights).

- A TP station is automatically searched for and received at the instant of toggling the TA mode on if you are receiving a non-TP station or TP station with poor reception.
- When executing station search or APM, only TP stations are selected.
- Setting to TA on with the unit in another mode, it will automatically switch to radio mode and output the traffic announcement when the traffic announcement begins. The traffic announcement having finished, the unit will return to the previous mode. (TA Standby Mode)

PTY (Programme Type)

The following functions are available when the PTY mode is active.

- The PTY of receiving station appears.
- Programs can be searched for by PTY.

Note: PTY language can be selected. (⇒ "Function Settings")

Other functions of RDS

CT (Clock Time)

The clock is automatically adjusted.

PS (Programme Service Name)

As well as the frequency, the name of the broadcast station appears.

EON (Enhanced Other Network) (EON)

RDS information is updated constantly in response to the current position.

EON-TA

Traffic information from the current and other network stations can be received.

Emergency Announcement Reception

Emergency announcement automatically appears on the display when it is received.

ALARM

AF (Alternative Frequency)

AF Level

Hold down **[TA] (AF)** for more than 2 seconds to select AF level.

AF1 ON: Low level AF operating sensitivity. (Default)

AF2 ON: High level AF operating sensitivity.

AF OFF: When the AF network of an RDS station is not required.

PI Seek (Programme Identification Seek)

If reception becomes poor when tuning in a preset station, press the same preset number button. The same station with better reception will be searched for.

Press same preset number button again to cancel.

PI SEEK

Note: For PI Seek, cancel the TA mode first, then execute PI Seek.

TA (Traffic Announcement)

TA On/Off

Pressing **[TA]** toggles TA on and off.

Traffic Information Only (TA Mute)

For listening to only traffic information, activate TA and set the volume to 0 in FM mode.

Once traffic information starts, the volume changes to the TA volume. (⇒ "Audio Settings")

PTY (Programme Type)

PTY On/Off

Holding down **[DISP] (PTY)** for more than 2 seconds toggles PTY mode on and off.

Programme Search by PTY

Programs can be searched for by use of PTY that has been originally preset.

Press **[1]** to **[6]** to select PTY in the PTY mode.

	Programme Type	Contents
1	NEWS	NEWS
2	SPEECH	AFFAIRS, INFO, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, DOCUMENT
3	SPORT	SPORT
4	POP M	POP M
5	CLASSICS	CLASSICS
6	MUSIC	ROCK M, EASY M, LIGHT M, OTHER M, JAZZ, COUNTRY, NATION M, OLDIES, FOLK M

Another station in the same PTY is searched for by pressing **[BAND]**.

Notes:

- When there is no corresponding programme type station, "NONE" is displayed.
- A desired PTY appears for 5 seconds.
- Preset contents are changeable.

Detailed PTY Selection

1 Press **[<]** or **[>]** to select PTY.

SPEECH → MUSIC → NEWS → AFFAIRS →
INFO → SPORT → EDUCATE → DRAMA →
CULTURE → SCIENCE → VARIED → POP M →
ROCK M → EASY M → LIGHT M → CLASSICS →
OTHER M → WEATHER → FINANCE → CHILDREN →
SOCIAL → RELIGION → PHONE IN → TRAVEL →
LEISURE → JAZZ → COUNTRY → NATION M →
OLDIES → FOLK M → DOCUMENT

2 Press **[BAND]**.

Search starts.

Notes:

- To stop searching, press **[BAND] (SET)**.
- When there is no corresponding programme type station, "NONE" is displayed.

PTY Preset Change

Original PTY presets can be changed as you like.

1 Select a PTY that you would like to preset.

2 Follow the procedure of ordinary presetting. (⇒ "Station Preset" in "Radio (AM [LW/MW]/FM)")

Audio Settings

[VOL] (Volume)
selects a value in the audio menu.
(PUSH SEL) (Push to select)
selects items in the audio menu.
[DISP] (Display)
exits from the audio menu.

Audio menu

1 Press **[VOL] (PUSH SEL)** to display the audio menu display.

Note: If no operation takes place for more than 7 seconds in the audio menu (2 seconds in Main volume adjustment), the display returns to the regular mode.

2 Press **[VOL] (PUSH SEL)** to select a mode to be adjusted.

3 Turn **[VOL]** clockwise or counterclockwise to adjust.

- **Volume** (Setting Range: 0 to 40, Default: 18) — ① : Up ② : Down
- **Bass** (Setting Range: –12 dB to +12 dB by 2 dB, Default: 0 dB) — ① : Increased ② : Decreased
- **Treble** (Setting Range: –12 dB to +12 dB by 2 dB, Default: 0 dB) — ① : Increased ② : Decreased
- **Balance** (Setting Range: 15 levels each, Default CNT (centre)) — ① : Right enhanced ② : Left enhanced
- **Fader** (Setting Range: 15 levels each, Default CNT (centre)) — ① : Front enhanced ② : Rear enhanced
- **External Mute** Allows you to mute the current source while Panasonic navigation system provides voice guidance or car telephone conversation is in progress. (Setting Range: 0 (no sound), 1 (decrease 15 steps), 2 (decrease 10 steps) and OFF (unchanged), Default: 0) — ① : Increased ② : Decreased
- **TA Volume Set** (Setting Range: 1 to 40, Default: 18) — ① : Increased ② : Decreased

Note: If the fader is set to front, the pre-amp. output (rear) is decreased.

Function Settings

[VOL]
selects a value in the function menu.
(PUSH SEL) (Push to select)
selects items in the function menu.
[DISP] (Display)
exits from the function menu.

Function Menu

1 Hold down **[VOL] (PUSH SEL)** for more than 2 seconds to display the function menu display.

Note: If no operation takes place for more than 7 seconds in the function menu, the display returns to the regular mode.

2 Press **[VOL] (PUSH SEL)** to select a mode to be adjusted.

3 Turn **[VOL]** clockwise or counterclockwise to adjust.

- **FM Monaural** (FM) — Noise is significantly decreased when weak signals are received from an FM broadcast station. (Default: OFF) — MONO OFF / MONO ON (MONO lights.)
- **FM Local** (FM) — Only stations with good reception are detected in seek tuning. (Default: OFF) — LOCAL OFF / LOCAL ON (LOCAL lights.)
- **AM Local** (AM) — Only stations with good reception are detected in seek tuning. (Default: OFF) — LOCAL OFF / LOCAL ON (LOCAL lights.)
- **ACC Selection** (Default: OFF) (⇒ "Preparation") — Set to OFF if your car has no ACC position. / Set to ON if your car has an ACC position.
- **Region** (RDS) (Default: OFF) — **Note:** When the Region mode is switched from OFF to ON or vice versa, the AF mode turns on automatically. — The frequency is changed also for programs outside the region. / The frequency is changed only for programs within the region.
- **PTY Language** (RDS) (Default: ENGLISH) — English / Swedish